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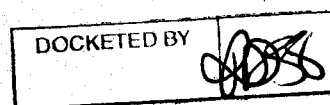
July 30, 2010

ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL

Mr. Jeff Guldner  
Vice President for Regulatory Affairs  
Arizona Public Service Company  
400 North Fifth Street  
M.S. 8995  
Phoenix, AZ 85004

Arizona Corporation Commission  
**DOCKETED**

AUG 2 2010



Mr. Ray Heyman  
Vice President for Regulatory Affairs  
Tucson Electric Power Company  
One South First Street, Ste. 1820  
Tucson, AZ 85701

**Re: Battery storage research and development for use in conjunction with energy efficiency and renewable energy technology; 2011 REST and Energy Efficiency Implementation Plans; Docket Nos. E-01345A-10-0262 and E-01345A-10-0166**

Dear Mr. Guldner and Mr. Heyman:

As Arizona continues on its pace to become a leader in both distributed and utility scale solar energy production and consumption, as well as in the use of energy efficiency to meet electric demand, the desirability and necessity of battery storage would seem to be on the rise.

At least one utility in California has formed an alliance with battery technology firms and the Center for Sustainable Energy California designed to look at how Electric Vehicle batteries can also be used for home energy storage. Under that program, San Diego Gas and Electric ("SDG&E") is deploying a battery storage testing program, in which the Company will test three different lithium batteries for their home energy storage capabilities.<sup>1</sup>

I am writing today to request that Arizona Public Service Company ("APS") and Tucson Electric Power Company ("TEP") examine the SDG&E battery program and report to the Commission, as a supplement to your respective 2011 REST or Energy Efficiency Implementation Plan dockets, whether a battery storage pilot program could be implemented in Arizona, and under what circumstances. I am particularly interested in whether your Companies have analyzed the potentially salutary impacts associated with battery storage on your systems, the potential cost

<sup>1</sup> See press release issued by the Center for Sustainable Energy California, "Study looks at repurposing batteries for household energy storage," June 10, 2010.

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savings associated with storage from a peak energy standpoint, and how and where the deployment of such battery storage would be most beneficial.

Arizona utilities typically experience high peak energy production costs during Arizona's summer months as the additional load created by our high temperatures and population growth necessitates relatively expensive gas-fired peaking generation during those times. I am interested in knowing whether Arizona utilities could maximize the value of the emerging battery technology sector in addressing these peaking needs.<sup>2</sup> Additionally, I would like to know whether you believe investment in battery storage pilot projects would make sense, in view of our state's overall commitment to distributed renewable energy. As you know, the Renewable Energy Standard in Arizona contains within it one of the highest distributed generation carve-outs in the nation, and the Commission has recently initiated workshops and a draft Policy Statement on Feed-in Tariffs for distributed wholesale generation. Finally, as you are aware, this week the Commission adopted one of the nation's most ambitious energy efficiency standards, which will require your Companies to deploy new and existing energy efficiency and Demand Response measures designed to achieve 22 percent energy savings by the year 2020. I am curious whether you believe battery technologies could become an energy efficiency measure in the future.

If you do believe there is value to examining battery storage technology, please identify where in your Renewable Energy Implementation Plan or Energy Efficiency Implementation Plans it would be best addressed.<sup>3</sup>

Thank you for your attention to this matter and I look forward to reviewing your responses.

Sincerely,

Kris Mayes  
Chairman

Cc: Commissioner Gary Pierce  
Commissioner Sandra Kennedy  
Commissioner Paul Newman  
Commissioner Bob Stump  
Ernest Johnson  
Steve Olea  
Janice Alward  
Lyn Farmer  
Rebecca Wilder

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<sup>2</sup> Please also inform the Commission of any existing battery storage testing you have ongoing, in particular any storage technology efforts you may be undertaking with the state's universities, or at APS' Star Testing facility in Tempe.

<sup>3</sup> For instance, the REST Implementation Plans of APS and TEP currently have provisions for Research and Development funding, typically conducted at Arizona's universities.